



US Army Corps  
of Engineers®  
Jacksonville District



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**T**he U.S. Army Corps of Engineers manages water resources contained within Herbert Hoover Dike and develops regulations for the operation of Lake Okeechobee's outlet structures. Lake Okeechobee operations ensure that congressionally-authorized project purposes are met. The authorized project purposes for Lake Okeechobee include flood and storm damage reduction, navigation, water supply for Everglades National Park, salinity control, regional groundwater control, agricultural irrigation, municipalities, and industry, enhancement of fish and wildlife, and recreation.

Before south Florida was settled, Lake Okeechobee water levels were controlled by natural conditions and events: rainfall, runoff from the Kissimmee River Valley, evaporation and outflows, primarily south into the Everglades. As the population of south Florida grew and agricultural communities began to thrive on the southern banks of Lake Okeechobee, the State of Florida and the Army Corps of Engineers constructed an array of projects to control the lake's elevation and prevent flooding. In the end, Lake Okeechobee was surrounded by a massive earthen berm – Herbert Hoover Dike.

The natural cycle of water levels in Lake Okeechobee corresponds closely to the wet and dry seasons. The wet season is typically from mid-May through November and the dry season is typically from December through mid-May. The lake's water level rises, not only from the precipitation that falls over the lake, but from the storm water runoff that comes from the Kissimmee River and surrounding areas. Water levels in the lake are managed through use of a regulation schedule, which is designed to balance multiple, and often competing, project purposes and objectives.

One of the most important considerations for safety of life is the stability of the 70+-year-old Herbert Hoover Dike (HHD). This water-retaining structure was not built at the same standards we use today. Simply speaking, the dike was built with natural materials from the lake bottom.

For decades, the HHD has served its purpose well by containing lake water, even occasionally unavoidable high water levels. Over time, however, as lake levels have risen, the strength of the earthen structure has declined. As water levels in the lake rise, so does the risk that naturally-occurring seepage will increase beyond what normally occurs, potentially causing erosion that could lead to catastrophic failure.



# Your Questions Answered

## What is a regulation schedule? What is its purpose?

A regulation schedule is a tool used by water managers to meet congressionally-authorized project purposes. It is designed to balance multiple, and often competing, project purposes and objectives. Managing for better performance of one objective often worsens performance of competing objectives. For example, higher elevations tend to benefit water supply, but may increase the risk to public health and safety, and can harm the ecology of the lake. Lower lake elevations may produce lake levels more desirable for the lake ecology and improve flood and storm damage reduction, but also reduce water supply potential and may harm the ecology of the lake and downstream estuaries. Therefore, the goal of the lake regulation schedule is to balance the performance of multiple project purposes.

## What is the 2008 Okeechobee Regulation Schedule?

The Lake Okeechobee Regulation Schedule Study (LORSS) was initiated to address high lake levels, high estuarine discharges, estuary ecosystem conditions, and lake

ecology conditions that occurred during the 2003 to 2005 time period. The previous lake regulation schedule, the water supply and environmental schedule (WSE) did not adequately address the effect of high water levels on the integrity of the dike. The LORSS considered the back-to-back historically significant 2004 and 2005 hurricane seasons' effects on the recognized structural integrity issues of the HHD, along with effects to other project purposes.

## What are the Benefits of the 2008 LORS?

The 2008 LORS has many benefits when compared to its predecessor, the WSE schedule. Because the lake is managed a foot lower than it was under WSE, the risk of damage to the HHD is lower. LORS also increases the flexibility managers have when making decisions regarding operations. This flexibility allows the use of less damaging long-term, lower volume releases, as opposed to more damaging large volume releases. Since its adoption in 2008, LORS has provided the flexibility used by water managers to minimize impacts to the St. Lucie and Caloosahatchee estuaries in both dry and wet times.

## Water Management Considerations

					
Herbert Hoover Dike	Lake Ecology	Waterway Navigation	Estuaries - Caloosahatchee & St. Lucie	Greater Everglades	Water Supply
Public Health & Safety	Flora/Fauna	Commercial/Recreational Traffic	Flora/ Fauna	Flora/ Fauna	Municipal, Industrial, Native American, Agricultural, Environment
Regional/National Economy	Threatened/Endangered Species	Regional Economy	Threatened/Endangered Species	Threatened/Endangered Species	
	Regional/National Economy		Regional Economy	Regional Economy	Regional Economy

## For More Information



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